NAS JRB WILLOW GROVE

RESTORATION ADVISORY BOARD (RAB)

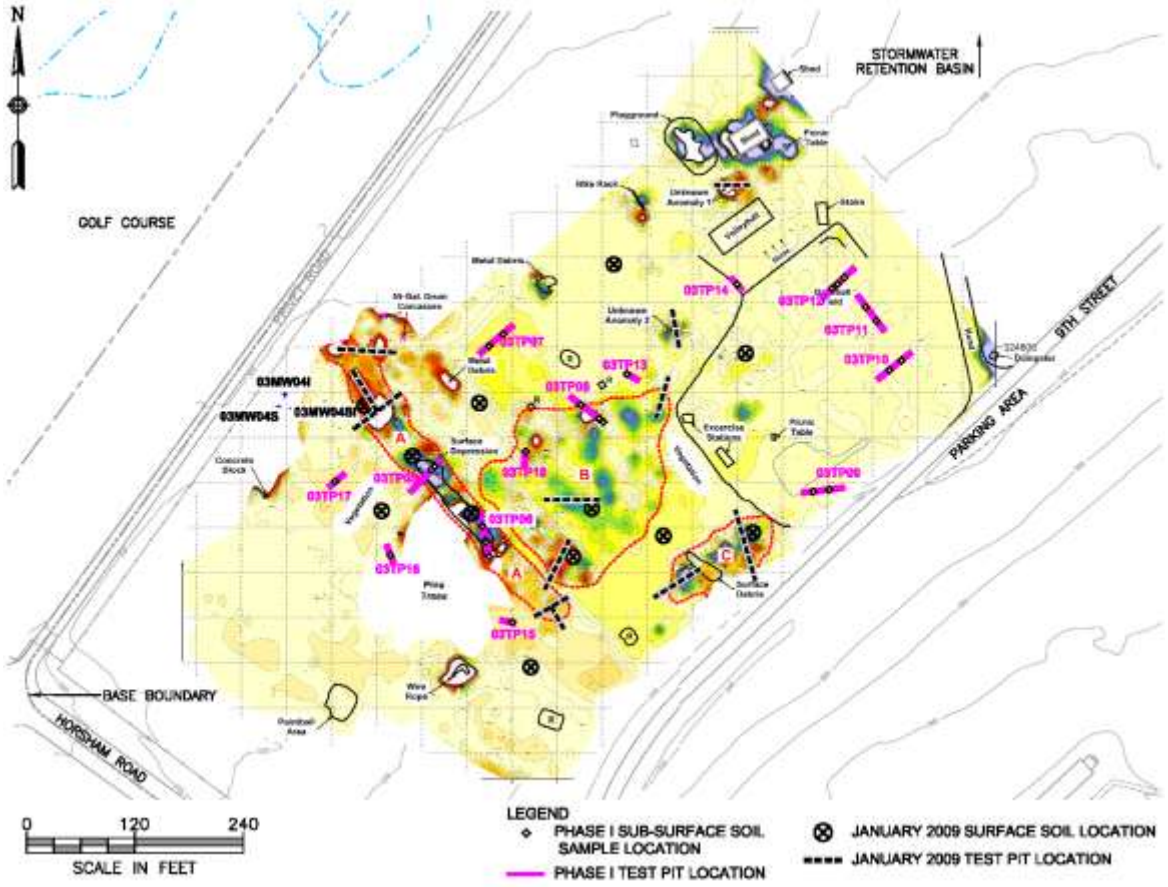
June 6, 2012
Meeting Number 49

Agenda

- Welcome Community RAB Members
- Site 3 – Ninth Street Landfill Status
- Site 5 – Fire Training Area Groundwater Remediation Status
- Site 12 – South Landfill Phase II Investigation Status
- Building 21 Lead Investigation
- Closing Remarks

Site 3 – Ninth Street Landfill

Site 3 – Ninth Street Landfill



Site 3 – Ninth Street Landfill

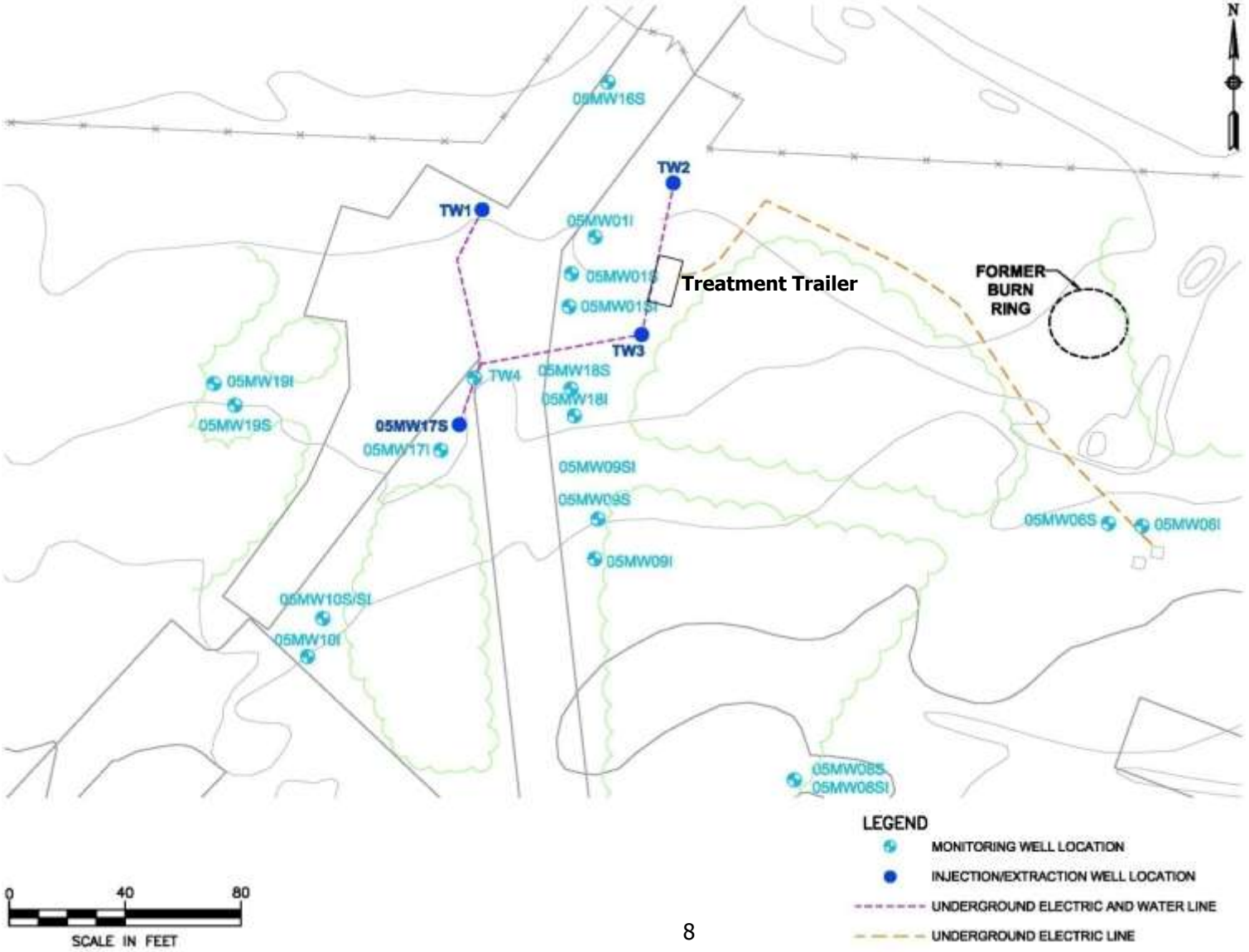
- Final RI Report – October 2011
  - Recommendation for chromium speciation at samples with elevated levels of chromium
- Chromium speciation conducted concurrently with Site 12 Phase II field investigation
  - Analysis for total chromium and hexavalent chromium
  - Hexavalent chromium has higher toxicity than total chromium
  - Remediation goal being developed based on results for total chromium and hexavalent chromium
- Feasibility Study in preparation
  - Evaluating removal and capping alternatives

Radiological Update

- Historical Radiological Assessment (HRA)
  - Required by Navy Policy for BRAC 2005 Bases
  - File review for potential radiological impacts
  - Draft report by early-summer 2012
  - Several sites identified as potentially impacted
- Basewide Radiological Management Plan
  - Provides plan for investigating sites from the HRA
  - Site 3 will be first site investigated (Scoping Survey)
- Scoping Survey for Site 3
  - Clear and grub site late Summer 2012
  - Surface scan and subsurface soil sampling in late Fall
  - Results will be incorporated into the Feasibility Study

Site 5 – Fire Training Area Groundwater

Site 5 – Fire Training Area Groundwater



Site 5 – Fire Training Area Groundwater

- Current Status
  - Original solvent compounds sharply reduced to absent
  - Intermediate compounds steady to declining
  - End stage compounds appearing
  - Periodic biostimulation is required
  - February 2012 – sampling for field parameters
    - Dissolved oxygen levels and oxidation-reduction potential readings show subsurface environment maintaining an anaerobic and reducing state

Site 5 Groundwater Proposed Remedy

- In-situ treatment of groundwater by anaerobic bioremediation in and around the former drum storage source area
- Natural Attenuation
- LUCs will be initiated to preclude use of untreated groundwater and require that future buildings are constructed to mitigate the potential for vapor intrusion of VOCs from the subsurface into the buildings

Site 5 Groundwater Remedial Design/Remedial Action

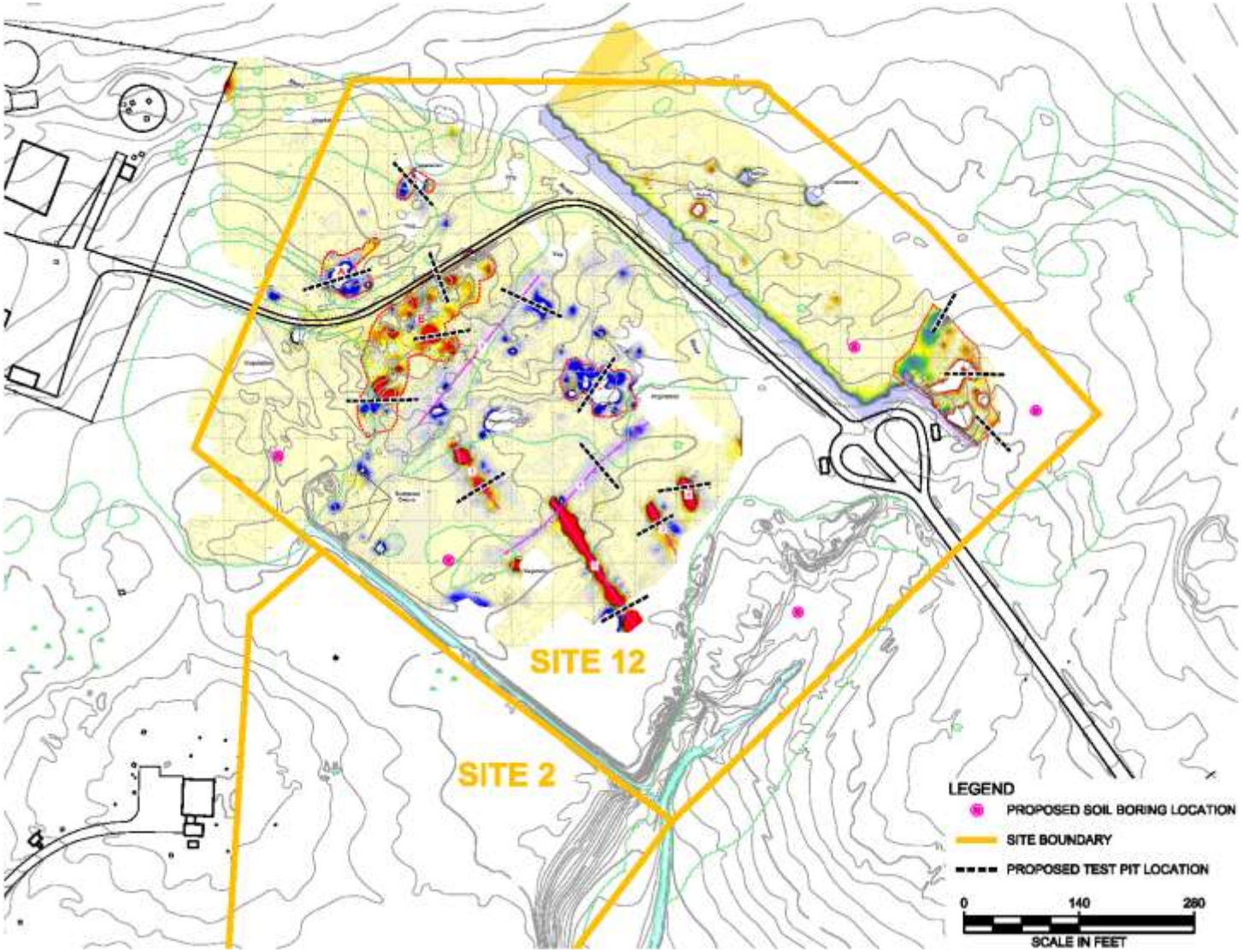
- After Record of Decision
  - Remedial Design for Land Use Controls
  - Remedial Design for Additional Injection Wells
    - Well installation
    - Sampling
    - Evaluation of subsurface conditions to determine "recipe" for amendments to continue and enhance bioremediation

Site 12 – South Landfill
Phase II Remedial Investigation

Site 12 – South Landfill
Phase I Remedial Investigation

- Field investigation including test pits, soil borings, soil samples, surface water/sediment samples completed January 2010
- Soil sampling biased to areas with buried wastes based on results of electromagnetic (EM) survey
- Test pits at EM anomalies confirmed presence of buried waste
- Contaminants exceeded project screening levels
  - Surface Soils: PAHs, pesticides, metals
  - Subsurface Soils: PAHs, pesticides, dioxins, metals
  - Groundwater results from Site 2 wells showed low levels of TCE (<MCL)
  - Surface Water/Sediment: PAHs, pesticides, metals
- Recommendations for Phase II investigation to delineate nature and extent of surface and subsurface soil contamination and installation and sampling of groundwater monitoring wells

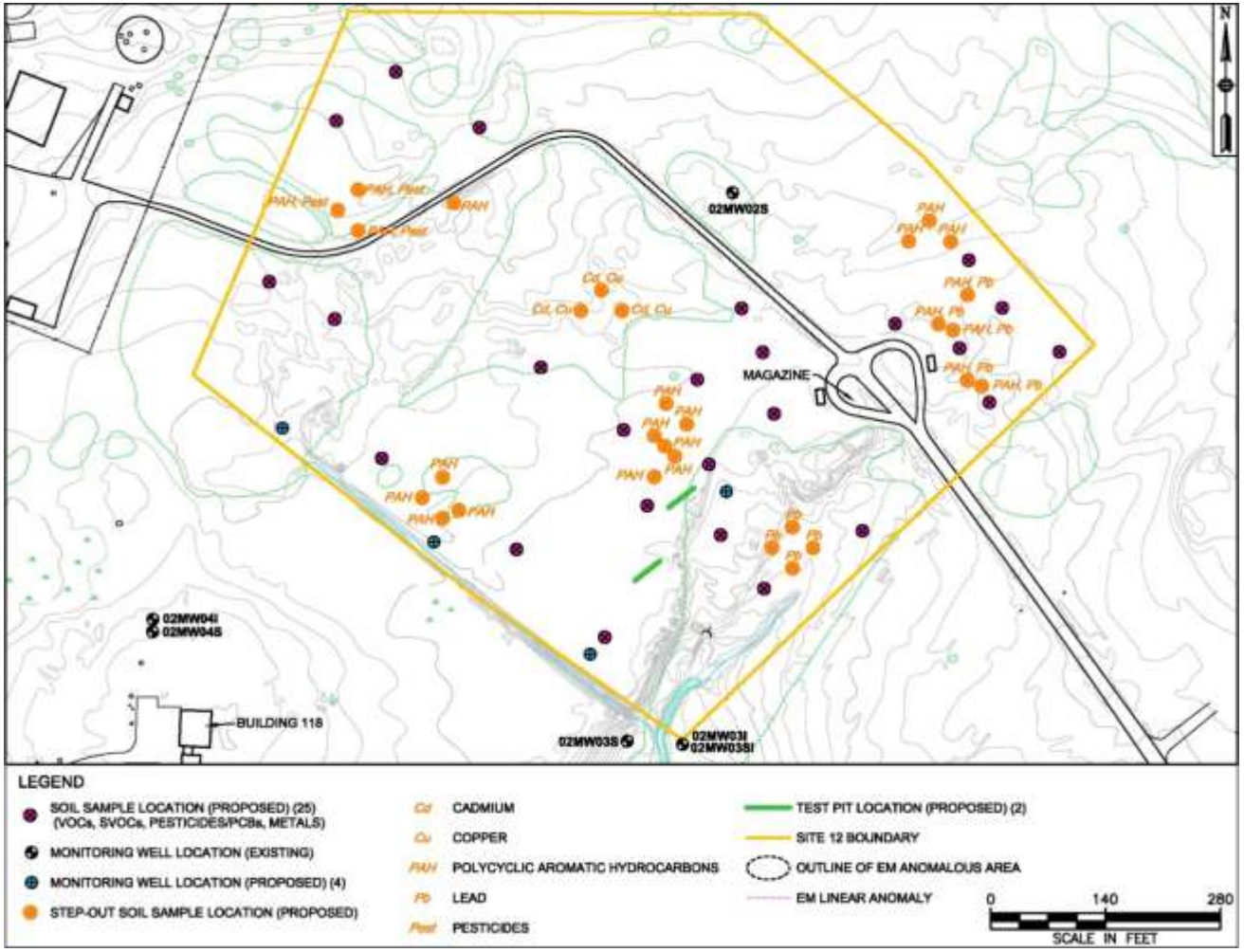
Site 12 Phase I EM Study



Site 12 – South Landfill
Phase II Remedial Investigation

- Phase II investigation field work complete
  - Test pits at 2 linear anomalies in southeastern portion
  - 25 shallow soil borings outside EM anomalies (VOCs, SVOCs, metals/cyanide, pesticides, PCBs; hexavalent chromium at some locations)
  - 29 shallow soil borings at step-out locations based on Phase I results (low level PAHs and/or metals or pesticides)
  - Chromium speciation
  - 4 new monitoring well clusters (overburden, shallow bedrock) within the landfill (VOCs, SVOCs, pesticides, PCBs, metals/cyanide; dioxins and furans at well cluster downgradient of Phase I test pit 12TP02)
  - Site 2 monitoring wells (VOCs)

Site 12 – South Landfill
Phase II Remedial Investigation



Site 12 Phase II Status

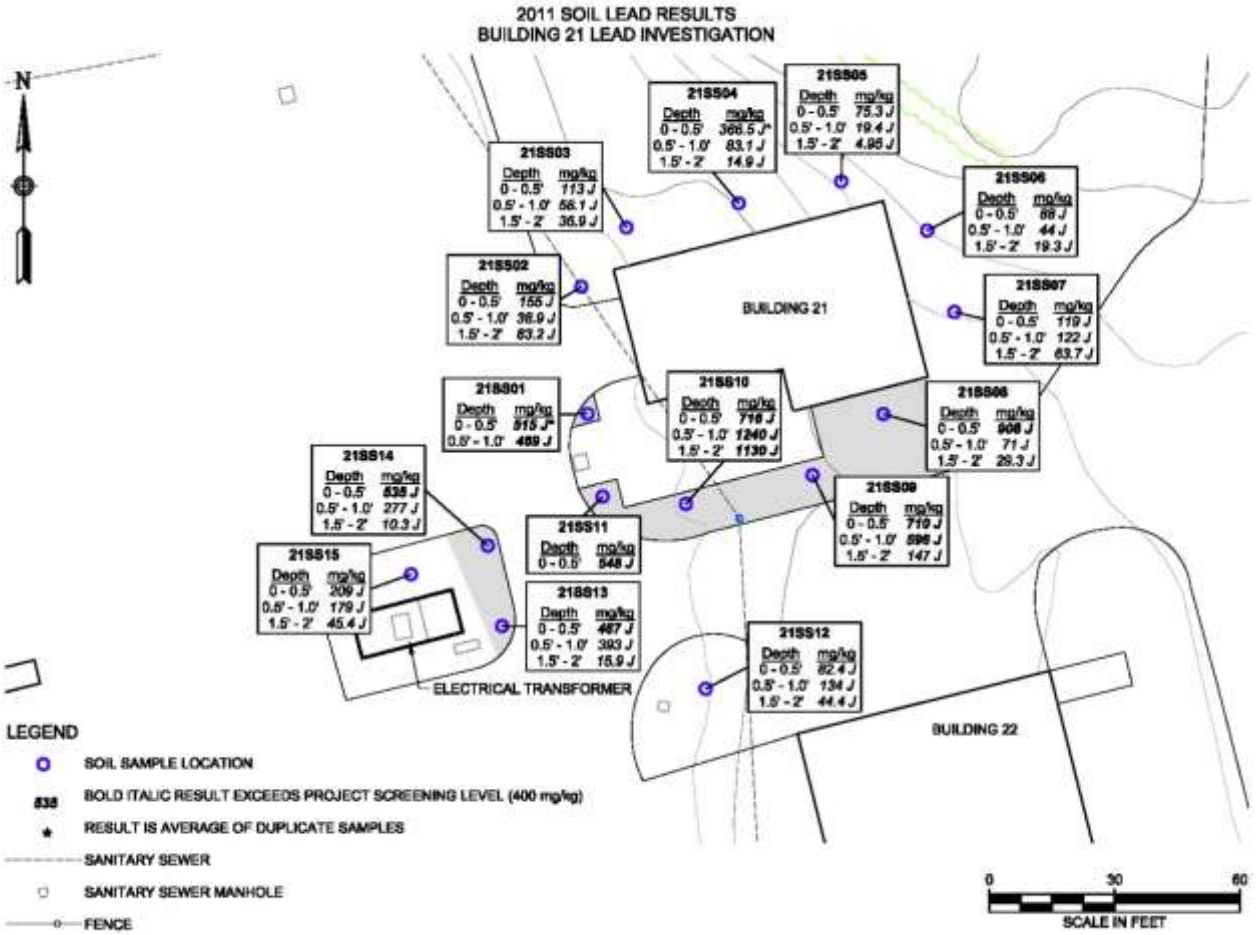
- Remedial Investigation Report in Progress
  - Data has been received, tabulated, and validated
  - Data evaluation currently being conducted
    - Statistical evaluation
    - Comparison to Project Action Levels/Screening Levels
  - Preparation of Human Health Risk Assessment and Ecological Risk Assessment in progress

Building 21 Lead Investigation

Building 21 Lead Investigation

- Former paint blasting and painting facility
- 1995 soil investigation showed lead in five surface soil samples from 186 mg/kg to 2,210 mg/kg
- Work plan for additional sampling approved by EPA and PADEP (September 2010)
- Lead sampling at 15 locations from 0 -0.5 ft, 0.5 to 1.0 feet, and 1.5 to 2.0 feet conducted October 2011; Final Inspection Report April 2012
- Results show lead-impacted soil on southern side of building and near transformer area (shaded area on next slide)
- Recommendation for removal of lead-impacted (>400 mg/kg) soil

Building 21 Lead Investigation Sampling Results



NAS JRB Willow Grove
RAB Meeting 49

- Closing Remarks
- Questions or Comments From The Community?
- Next Meeting Date (Proposed Date September __, 2012)

THE END